

# Small subs could serve as MX missile launch sites

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Small submarines in American coastal waters would make faster, safer, and probably cheaper mobile launching sites for MX intercontinental ballistic missiles than the Pentagon's proposed "loop road" launching sites, says a leading expert on strategic defense systems.

Dr. Sidney Drell, who took part in much of the research that led President Carter and Defense Secretary Harold Brown to conclude that fixed US land-based Minuteman missile silos are dangerously vulnerable to increasingly accurate Soviet missiles, calls his concept Shallow Underwater Mobile (SUM).

This is scientific-bureaucratic jargon for easy-to-build, diesel-powered submarines of about 500 tons apiece — in contrast to the mammoth, 18,000-ton, billion-dollar nuclear-powered Trident submarines the US Navy now is building.

Some 50 or so SUMs, each carrying two of the new MX missiles and cruising within about 200 miles of the US Atlantic and Pacific coasts, would be relatively safe from enemy strategic attack or antisubmarine warfare, Dr. Drell contends.

Dr. Drell believes the present \$33 billion MX program, sheltering missiles in silos connected by desert "loop roads" in Utah and Nevada, may not be built because of local political and environmental objections and other difficulties such as procuring enough water. Even if both this and the Trident program are built, however, he suggests SUM could be a "fourth leg" to the "three-legged" US strategic deterrence. The US triad now consists of nuclear-armed bombers, and land-based and giant-submarine-based missiles.

The administration has argued that the land-based mobile MX is far more accurate than the SUMs would be. Dr. Drell says SUMs

accuracy could be sharpened by satellite and land-based remote guidance.

Dr. Drell's suggestions were made last Feb. 6 and 7 to a congressional subcommittee, but were largely ignored. He says this was because "the Navy is not interested in promoting any system that opposes Trident. They are too committed to it." (Defense Secretary James R. Schlesinger proposed a smaller submarine system, the "Narwhal," in his 1976 defense posture statement, but Navy objections torpedoed the idea.)

Dr. Drell spoke at a recent private briefing of the Arms Control Association here. The re-introduction of his "small is beautiful" idea into the ongoing debate over US strategic systems for the 1980s comes at a moment of strong controversy over Senate ratification of SALT II and over the size and emphasis of the US defense budget.

Dr. Drell, a theoretical physicist now working with the Stanford Linear Accelerator at Stanford, California, and a consultant to the White House and the Arms Control and Disarmament Agency, admits he is not qualified to judge relative cost factors on the SUM and other systems. However, he was associated with the 1978 "Jason" study and others on the aiming and accuracy of air-launched and sea-launched missiles.

One of the main administration arguments for the "race track" land-based mobile-missile system has been its high degree of accuracy. Without elaborating, Dr. Drell argues that "encapsulated" MX missiles fired by SUM could be remotely guided with great accuracy, either by a satellite system, now under development by the Navy, or by land-based guidance systems.

Dr. Drell says West Germany's class of 500-ton submarines with 18-man crews, built for Baltic sea patrol, and existing US oceanographic research subs are examples of undersea craft the size he is talking about. SUM, he adds, would be highly computerized and could carry crews of only 12 men.

Supplies could be replenished and crew changes made at sea, if necessary, to avoid ports in wartime, and the submarines could "plug into" low-frequency communications systems that would obviate the difficulties the Navy's Polaris and Trident subs have communicating when submerged.

Secure communications, including acknowledgement and authentication signaling, and other command and control functions would be relatively simple on the SUM system, Dr. Drell argues.